WHAT IS CLAIMED IS:

1. A Tire provided with a capacitative sensor comprising two substantially parallel electrodes, the capacitative sensor being located on a sidewall of the tire, wherein the electrodes of the sensor lie substantially in a plane perpendicular to the rotation axis of the tire and are substantially orientated in an ortho-radial direction.

2. The tire of Claim 1, in which the sensor's electrodes are filamentary electrodes.

3. The tire of Claim 2, in which the electrodes are filaments of conductive rubber.

4. The tire of Claim 1, in which the electrodes are strip electrodes.

5. The tire of Claim 1, in which the electrodes are rectilinear.

6. The tire of Claim 1, in which the electrodes are arcs of circles substantially concentric with the rotation axis of the tire.

7. The tire of Claim 1, in which the two electrodes are embedded in an elastomeric body configured so as to facilitate displacements of one electrode relative to the other.

8. The tire of Claim 7, in which the elastomeric body comprises a slot between the two electrodes.

9. The tire of Claim 1, in which the sensor is provided with a flexible conductive envelope connected to a fixed potential designed to limit electromagnetic interferences.

10. The tire of Claim 9, in which the conductive envelope comprises conductive particles embedded in the elastomeric body, these conductive particles being for example carbon black or metallic particles.

11. The tire of Claim 1, in which the sensor is located on a part of the sidewall of the tire between a bottom zone and a zone of maximum flexure.

12. A deformation sensor comprising two substantially parallel electrodes embedded in an elastomeric body forming a dielectric, wherein the sensor is configured to facilitate displacements of one electrode relative to the other and is provided with a flexible conductive envelope connected to a fixed potential and designed to limit electromagnetic interferences.

13. The deformation sensor of Claim 12, in which the conductive envelope comprises conductive particles embedded in the elastomeric body, these conductive particles being for example carbon black or metallic particles.

14. The deformation sensor of Claim 12, in which the elastomeric body has a slot between the two electrodes.

15. A Process for evaluating the deflection of a tire, wherein the local bending of part of the sidewall of the tire in a plane containing the axis of the tire is measured.

16. The process for evaluating the deflection of a of Claim 15, in which the part of the sidewall of the tire whose local bending is measured is located between a bottom zone and a zone of maximum flexure.

17. The process for evaluating the deflection of a tire of Claim 15, in which the pressure of the tire is also measured.